(12) UK Patent Application (19) GB (11) 2 355 357 (13) A

(43) Date of A Publication 18.04.2001

(21) Application No 0018993.6

(22) Date of Filing 02.08.2000

(30) Priority Data
(31) 09382168 (32) 24.08.1999 (33) US

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(51) INT CL[7]
H04N 1/00

(52) UK CL (Edition S)
H4F FFB F2B

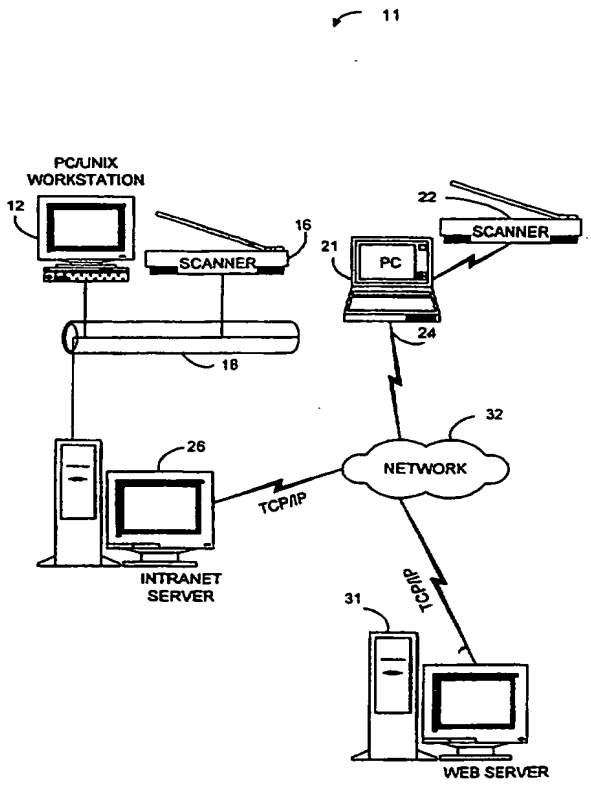
(56) Documents Cited
GB 2331663 A GB 2324002 A WO 99/48276 A1
WO 98/58335 A2 US 5764866 A

(58) Field of Search
UK CL (Edition S) H4F FFB
INT CL[7] H04N 1/00
ONLINE: WPI EPODOC PAJ INTERNET

(54) Abstract Title
Scanner for scanning images directly to an online web page

(57) A scanner (22) provides image data relating to scanned images directly to an internet web page or site stored on and managed by a server (31). Such an arrangement avoids the need for a separate device (21), such as a computer / PC, to be provided between the scanner and server. Also disclosed is an arrangement in which a scanner (16) is connected to a web server (31) via an intranet, such as a LAN, managed by an intranet server (26). Construction of an online home page including the scanned image is made simpler by the use of such an independent scanner arrangement.

FIG. 1



GB 2 355 357 A

FIG. 1

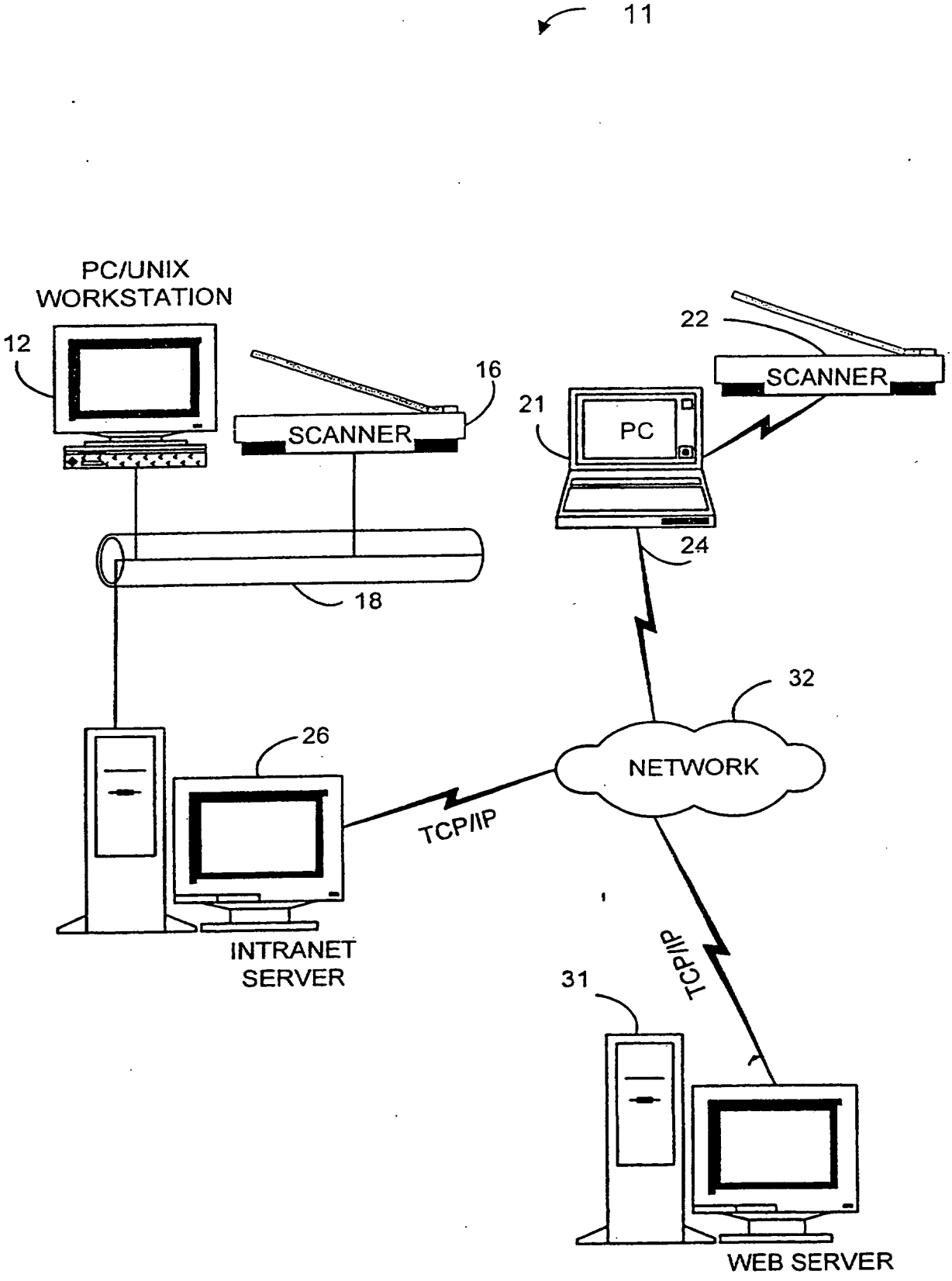
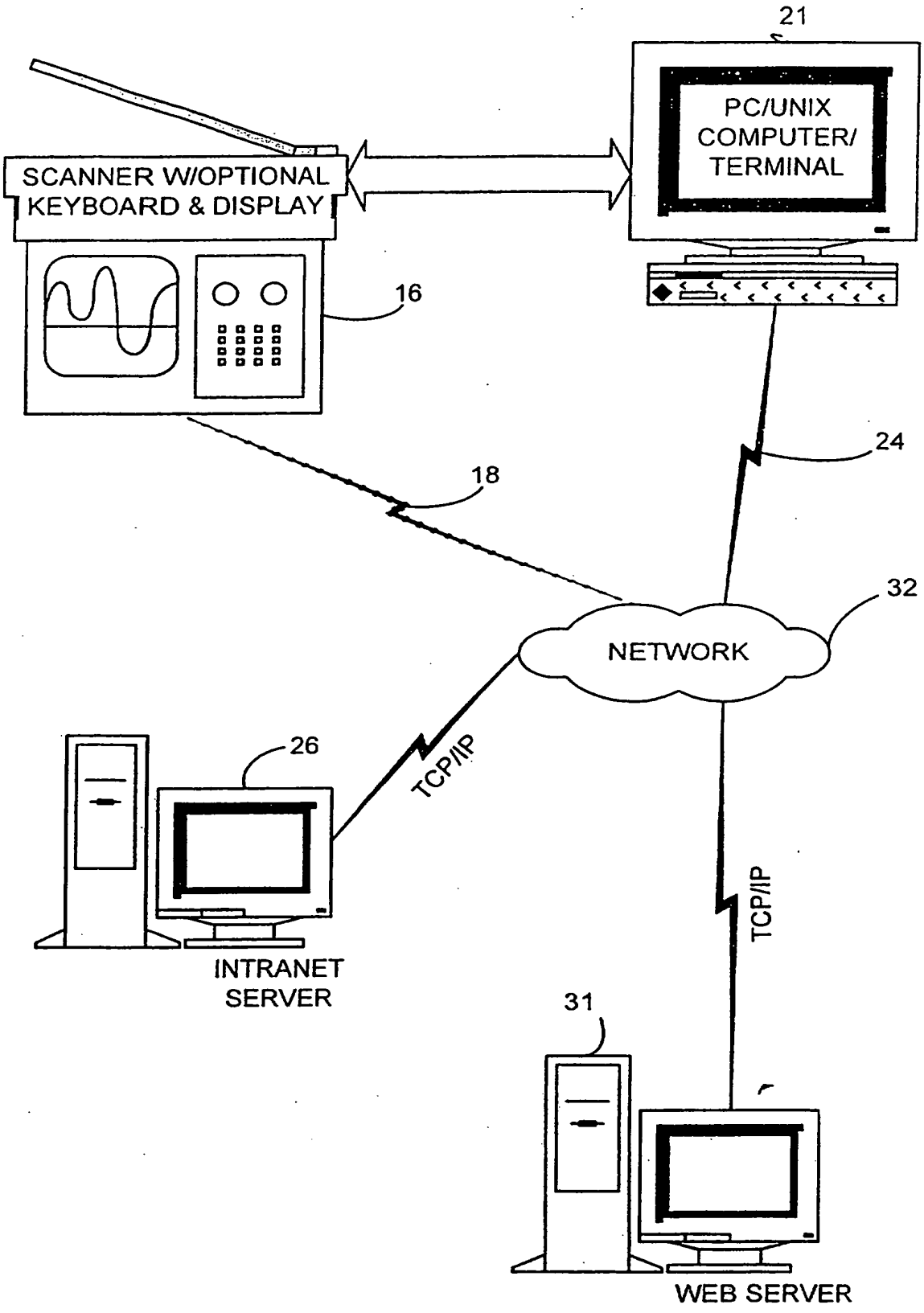

11
PC/UNIX
WORKSTATION
12
SCANNER
16
22
SCANNER
21
PC
24
18
32
NETWORK
26
TCP/IP
INTRANET
SERVER
TCP/IP
31
WEB SERVER

FIG. 2


21
PC/UNIX
COMPUTER/
TERMINAL
SCANNER W/OPTIONAL
KEYBOARD & DISPLAY
16
24
18
32
NETWORK
26
TCP/IP
TCP/IP
INTRANET
SERVER
31
WEB SERVER

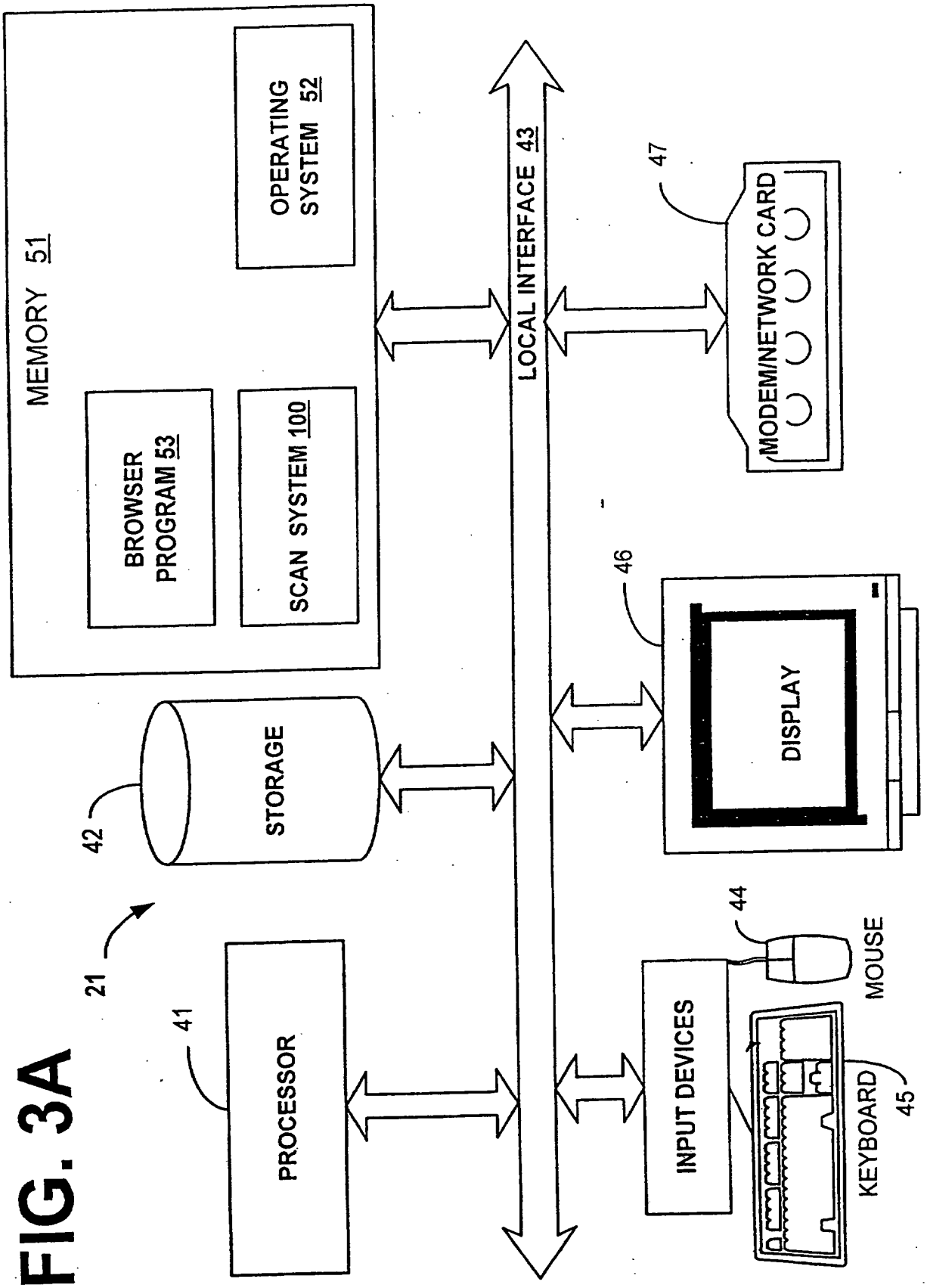

MEMORY 51
OPERATING SYSTEM 52
BROWSER PROGRAM 53
SCAN SYSTEM 100
LOCAL INTERFACE 43
47
MODEM/NETWORK CARD
46
DISPLAY
42
STORAGE
21
41
PROCESSOR
INPUT DEVICES
44
MOUSE
KEYBOARD
45

FIG. 3A

FIG. 3B

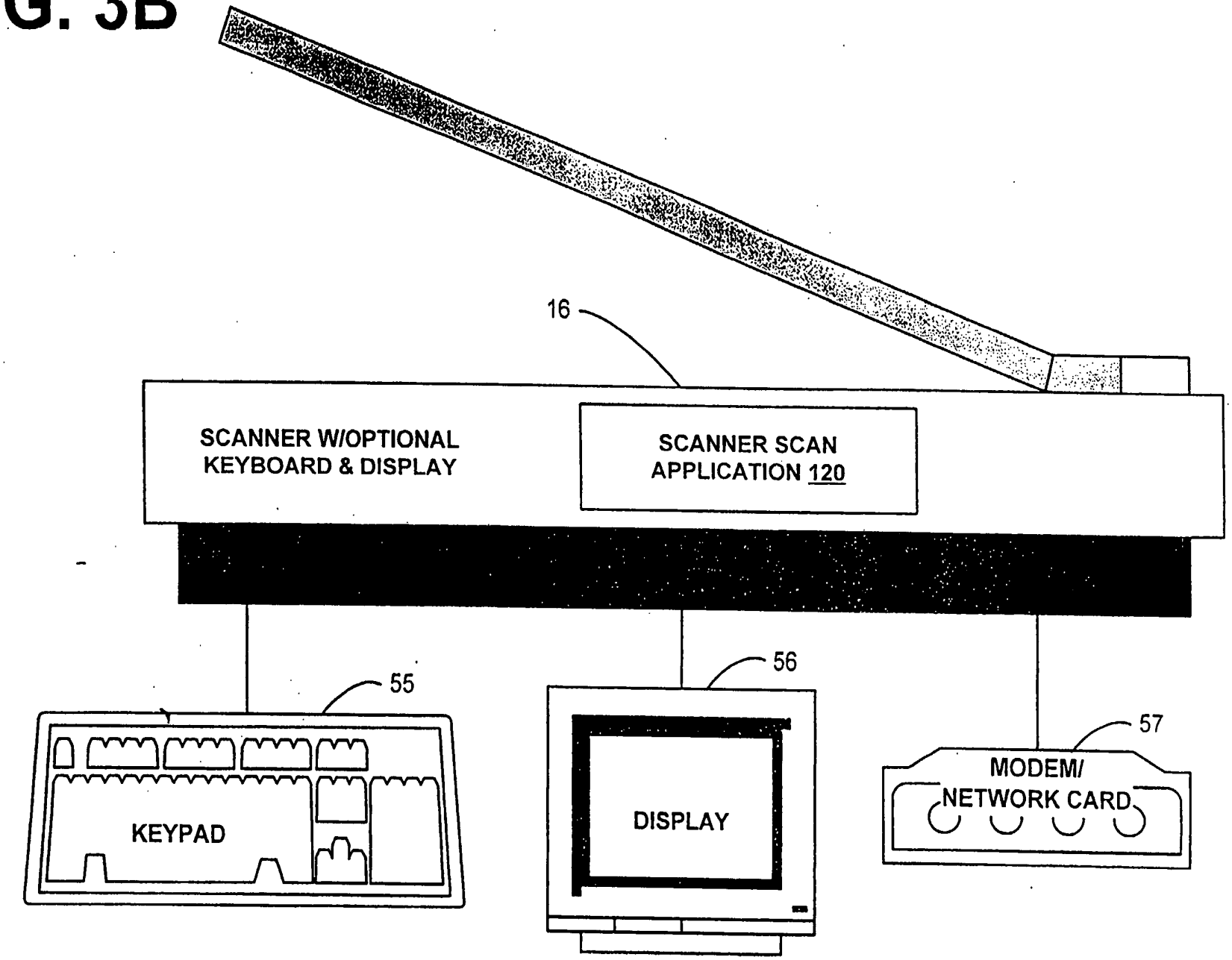

16
SCANNER W/OPTIONAL KEYBOARD & DISPLAY
SCANNER SCAN APPLICATION 120
55
KEYPAD
56
DISPLAY
57
MODEM/ NETWORK CARD

FIG. 4A

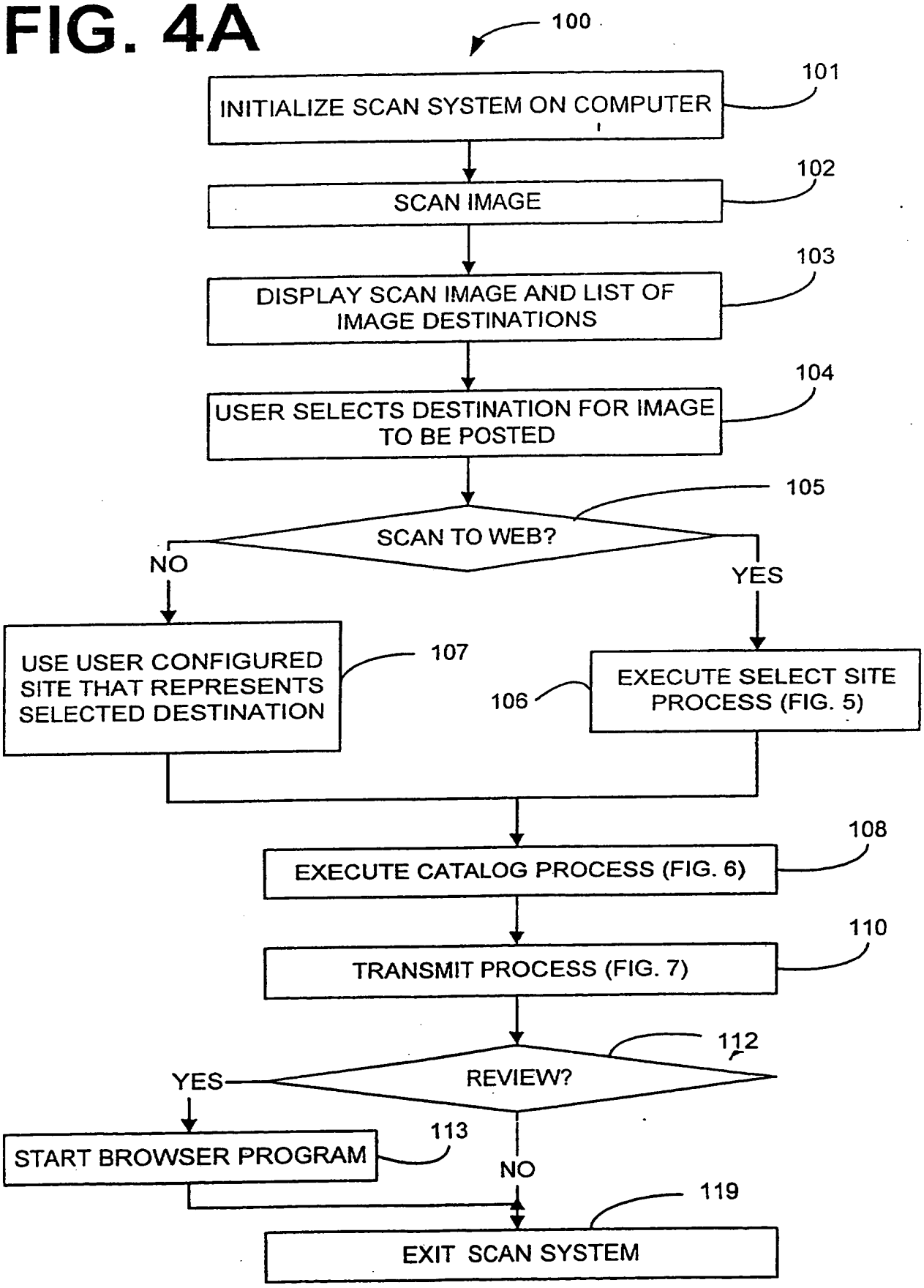

100
INITIALIZE SCAN SYSTEM ON COMPUTER
101
SCAN IMAGE
102
DISPLAY SCAN IMAGE AND LIST OF IMAGE DESTINATIONS
103
USER SELECTS DESTINATION FOR IMAGE TO BE POSTED
104
SCAN TO WEB?
105
NO
YES
USE USER CONFIGURED SITE THAT REPRESENTS SELECTED DESTINATION
107
EXECUTE SELECT SITE PROCESS (FIG. 5)
106
EXECUTE CATALOG PROCESS (FIG. 6)
108
TRANSMIT PROCESS (FIG. 7)
110
REVIEW?
112
YES
START BROWSER PROGRAM
113
NO
EXIT SCAN SYSTEM
119

FIG. 4B

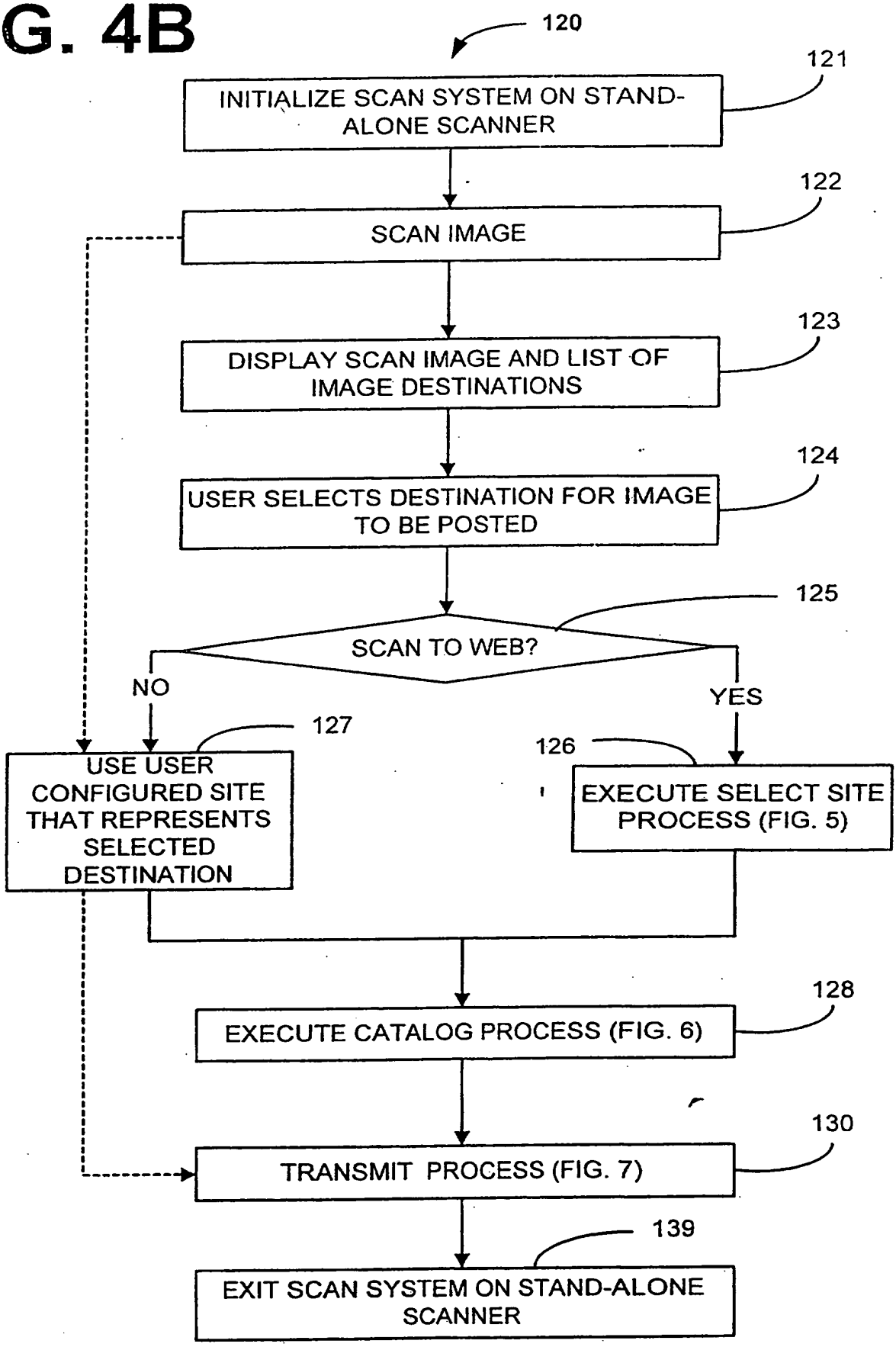

120
121
INITIALIZE SCAN SYSTEM ON STAND-ALONE SCANNER
122
SCAN IMAGE
123
DISPLAY SCAN IMAGE AND LIST OF IMAGE DESTINATIONS
124
USER SELECTS DESTINATION FOR IMAGE TO BE POSTED
125
SCAN TO WEB?
NO
YES
127
USE USER CONFIGURED SITE THAT REPRESENTS SELECTED DESTINATION
126
EXECUTE SELECT SITE PROCESS (FIG. 5)
128
EXECUTE CATALOG PROCESS (FIG. 6)
130
TRANSMIT PROCESS (FIG. 7)
139
EXIT SCAN SYSTEM ON STAND-ALONE SCANNER

FIG. 5

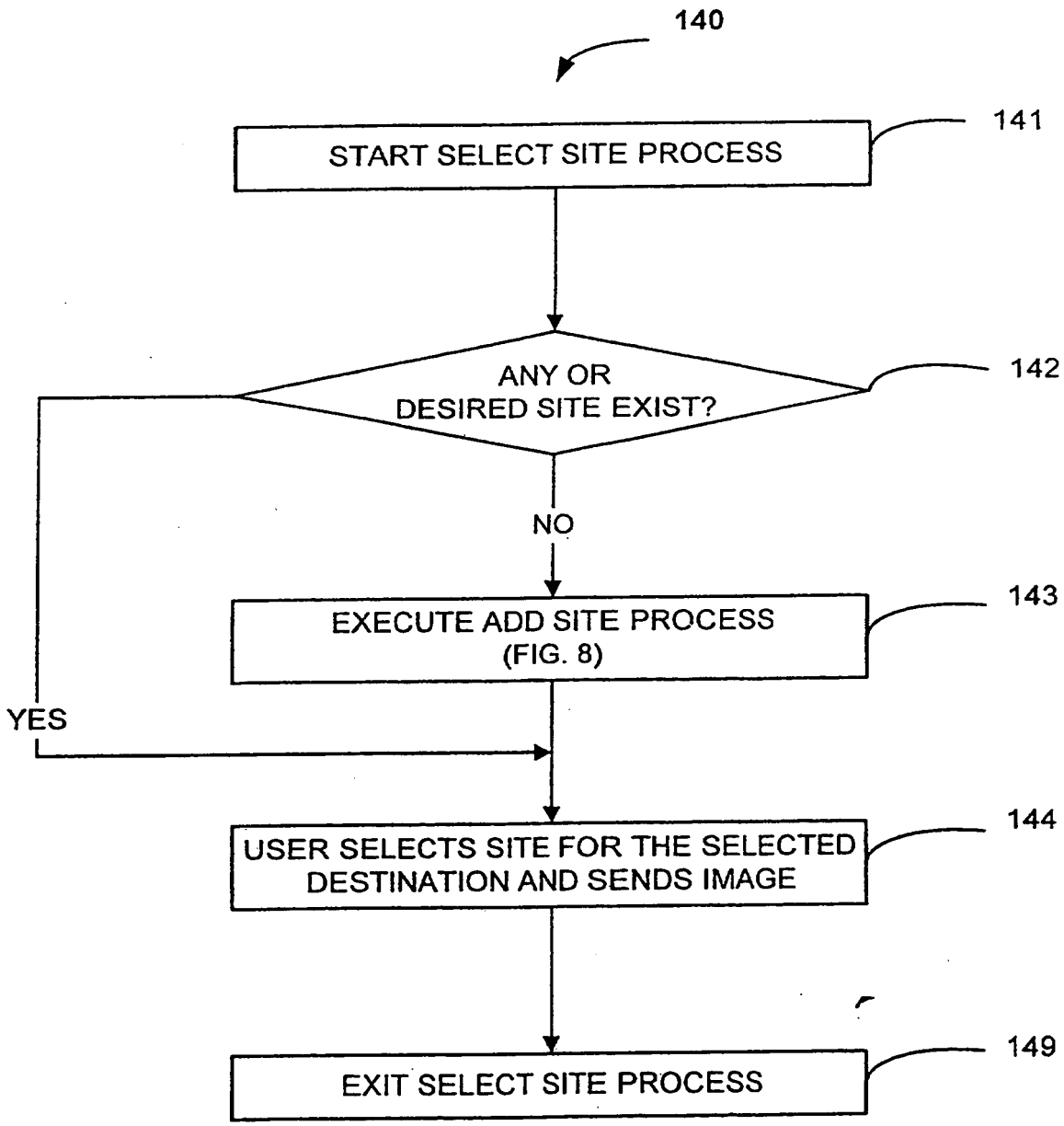

140
START SELECT SITE PROCESS
141
ANY OR
DESIRED SITE EXIST?
142
NO
EXECUTE ADD SITE PROCESS
(FIG. 8)
143
YES
USER SELECTS SITE FOR THE SELECTED
DESTINATION AND SENDS IMAGE
144
EXIT SELECT SITE PROCESS
149

FIG. 6

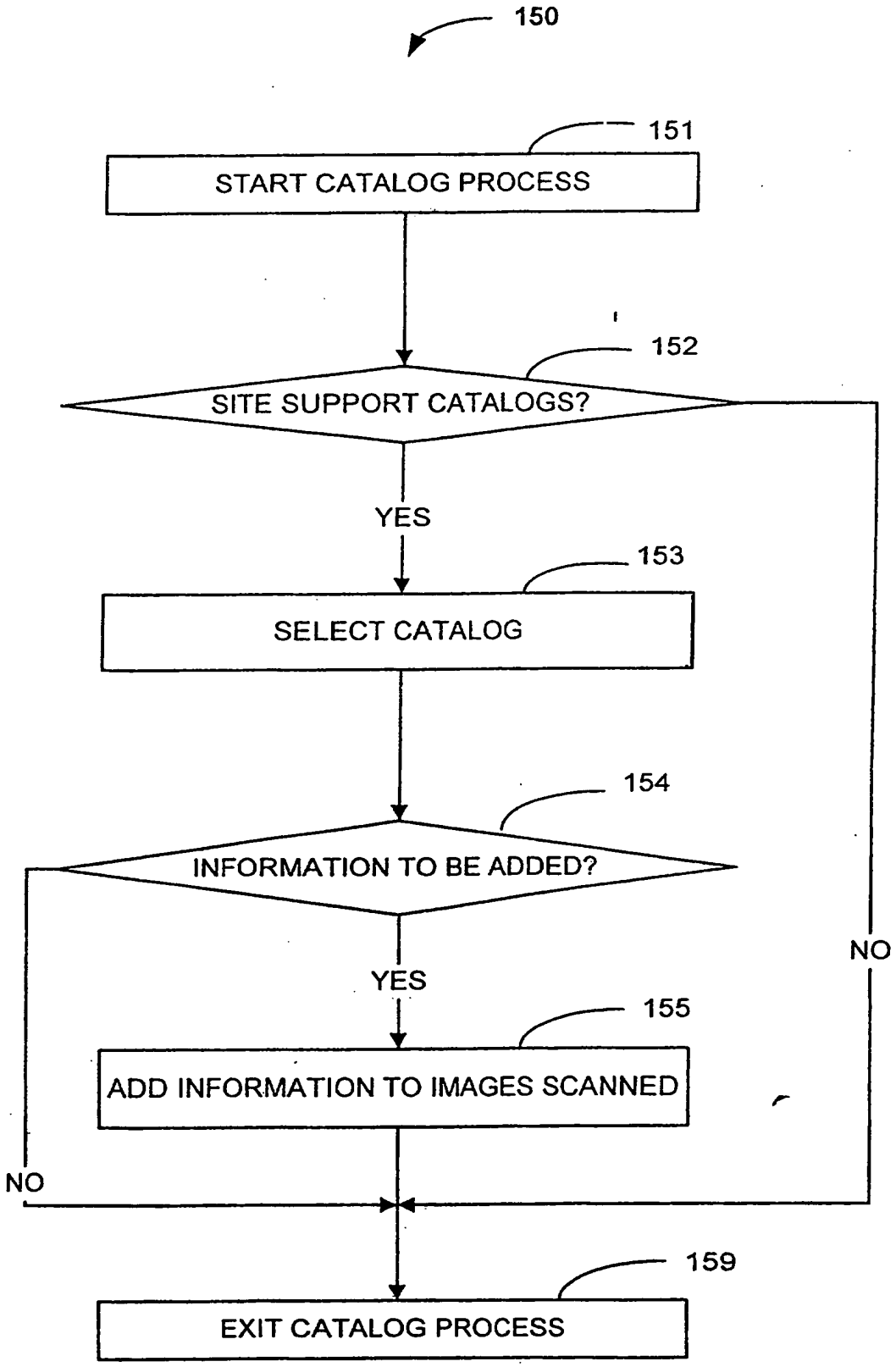

150
151
START CATALOG PROCESS
152
SITE SUPPORT CATALOGS?
YES
153
SELECT CATALOG
154
INFORMATION TO BE ADDED?
YES
155
ADD INFORMATION TO IMAGES SCANNED
NO
NO
159
EXIT CATALOG PROCESS

FIG. 7

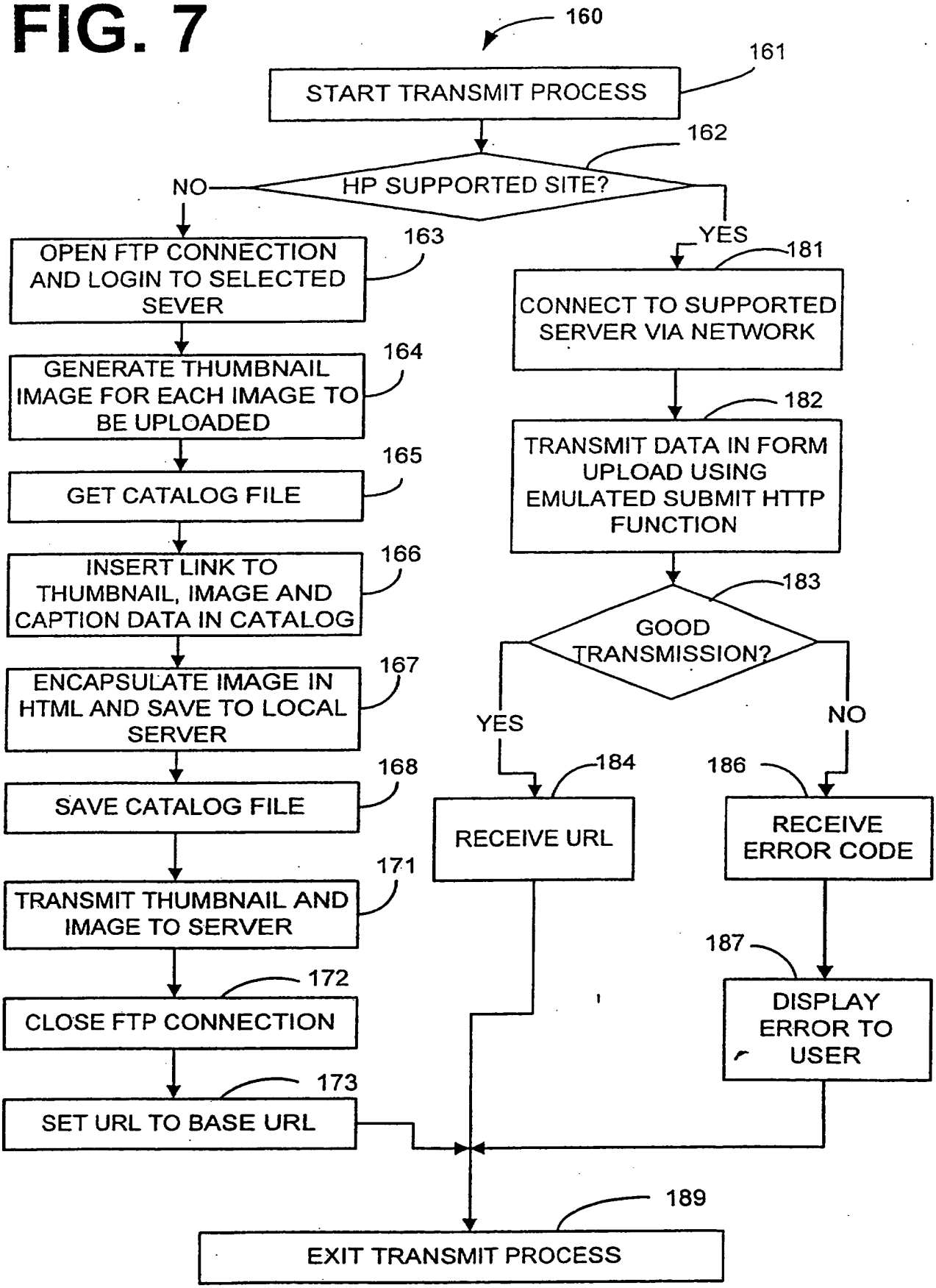

160
START TRANSMIT PROCESS
161
HP SUPPORTED SITE?
162
NO
YES
OPEN FTP CONNECTION AND LOGIN TO SELECTED SEVER
163
GENERATE THUMBNAIL IMAGE FOR EACH IMAGE TO BE UPLOADED
164
GET CATALOG FILE
165
INSERT LINK TO THUMBNAIL, IMAGE AND CAPTION DATA IN CATALOG
166
ENCAPSULATE IMAGE IN HTML AND SAVE TO LOCAL SERVER
167
SAVE CATALOG FILE
168
TRANSMIT THUMBNAIL AND IMAGE TO SERVER
171
CLOSE FTP CONNECTION
172
SET URL TO BASE URL
173
CONNECT TO SUPPORTED SERVER VIA NETWORK
181
TRANSMIT DATA IN FORM UPLOAD USING EMULATED SUBMIT HTTP FUNCTION
182
GOOD TRANSMISSION?
183
YES
NO
RECEIVE URL
184
RECEIVE ERROR CODE
186
DISPLAY ERROR TO USER
187
EXIT TRANSMIT PROCESS
189

FIG. 8

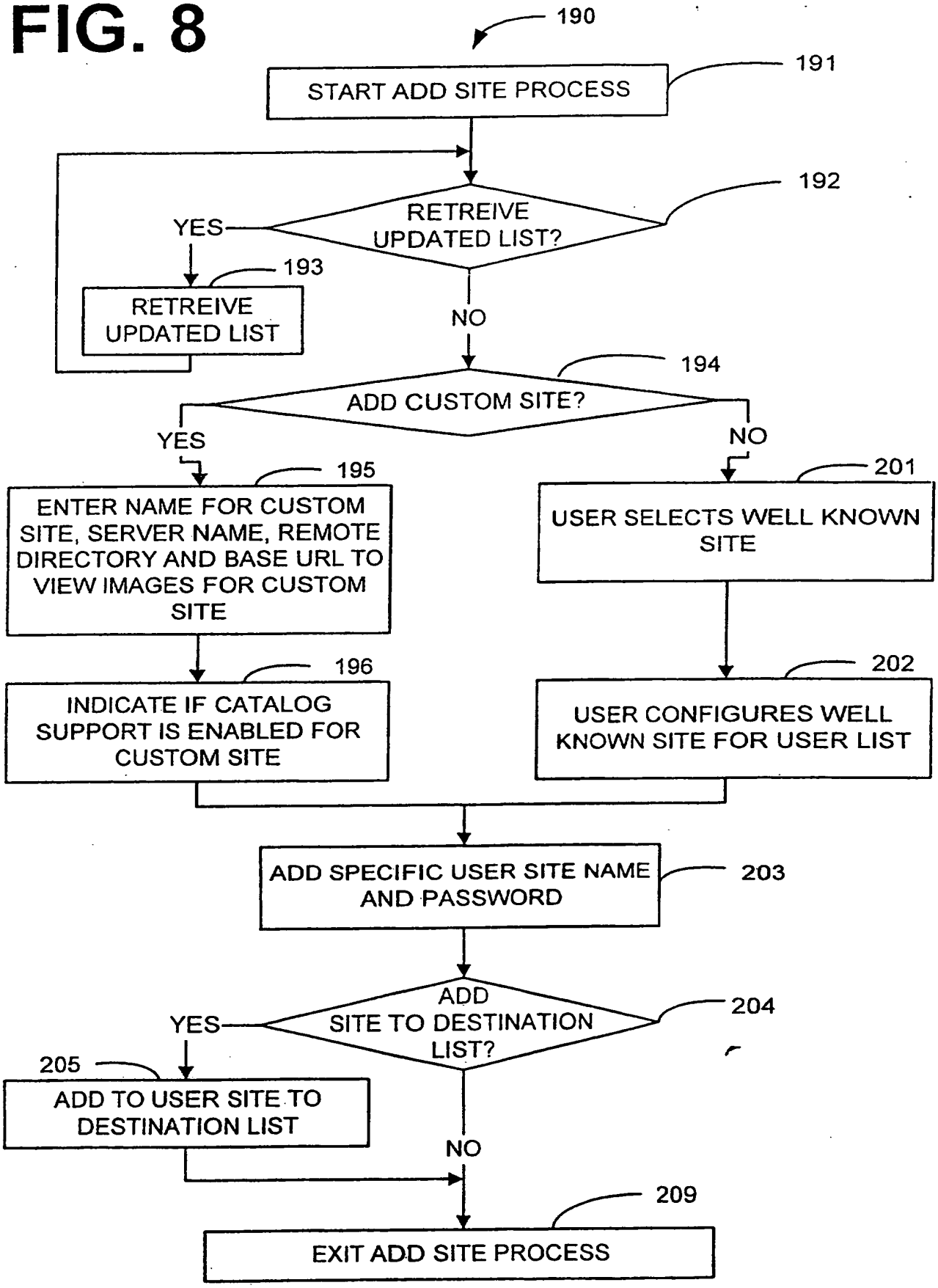
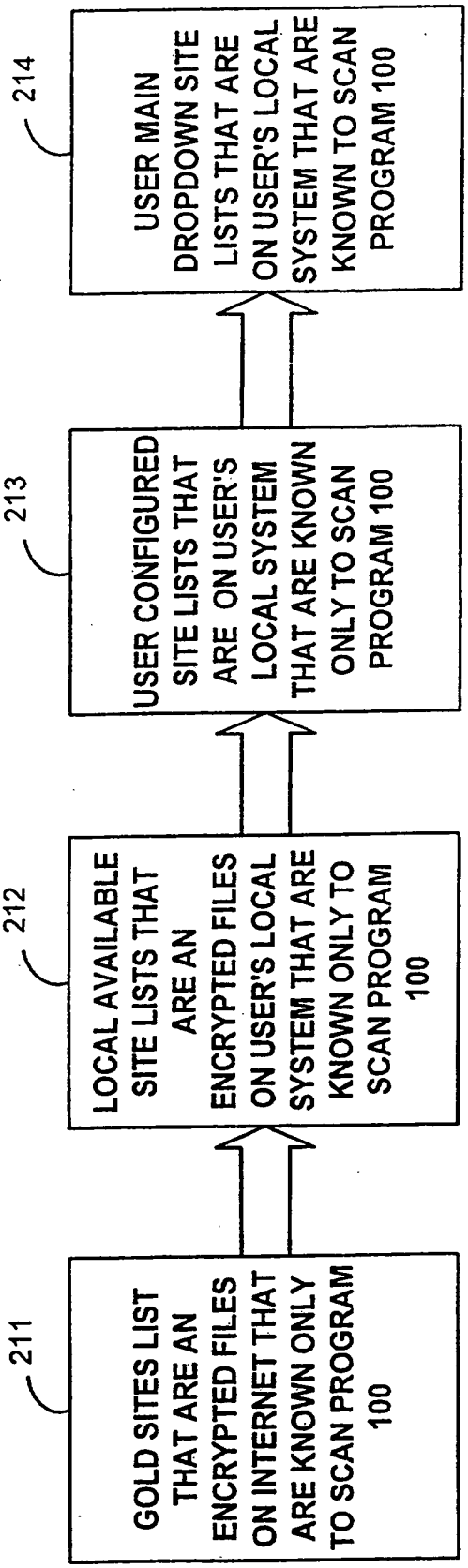

190
START ADD SITE PROCESS
191
RETREIVE UPDATED LIST?
192
YES
RETREIVE UPDATED LIST
193
NO
ADD CUSTOM SITE?
194
YES
NO
ENTER NAME FOR CUSTOM SITE, SERVER NAME, REMOTE DIRECTORY AND BASE URL TO VIEW IMAGES FOR CUSTOM SITE
195
USER SELECTS WELL KNOWN SITE
201
INDICATE IF CATALOG SUPPORT IS ENABLED FOR CUSTOM SITE
196
USER CONFIGURES WELL KNOWN SITE FOR USER LIST
202
ADD SPECIFIC USER SITE NAME AND PASSWORD
203
ADD SITE TO DESTINATION LIST?
204
YES
ADD TO USER SITE TO DESTINATION LIST
205
NO
EXIT ADD SITE PROCESS
209

FIG. 9


211
GOLD SITES LIST THAT ARE AN ENCRYPTED FILES ON INTERNET THAT ARE KNOWN ONLY TO SCAN PROGRAM 100
212
LOCAL AVAILABLE SITE LISTS THAT ARE AN ENCRYPTED FILES ON USER'S LOCAL SYSTEM THAT ARE KNOWN ONLY TO SCAN PROGRAM 100
213
USER CONFIGURED SITE LISTS THAT ARE ON USER'S LOCAL SYSTEM THAT ARE KNOWN ONLY TO SCAN PROGRAM 100
214
USER MAIN DROPDOWN SITE LISTS THAT ARE ON USER'S LOCAL SYSTEM THAT ARE KNOWN TO SCAN PROGRAM 100

SCAN SYSTEM AND METHOD FOR SCANNING IMAGES TO AN ONLINE WEB PAGE

BACKGROUND OF THE INVENTION

FIELD OF THE INVENTION

The present invention generally relates to computers and software, and more particularly, to a scan system and method providing users the ability to quickly and efficiently transfer images from a scanner to an online web page.

DESCRIPTION OF RELATED ART

As known in the art, the Internet is a worldwide collection of networks and gateways that use the TCP/IP suite of protocols to communicate with one another. At the heart of the Internet is a backbone of high-speed data communication lines between major nodes or host computers consisting of thousands of commercial government educational and other computer systems that route data and messages.

World Wide Web (WWW) refers to the total set of interlinked hypertext documents residing on hypertext transfer protocol (HTTP) servers all around the world. Documents on the WWW, called pages or web pages, are written in hypertext mark-up language (HTML) identified by uniform resource locators (URL) that specify the particular machine and pathname by which a file can be accessed and transmitted from node to node to the end user under HTTP. A web site is a related group of these documents and

associated files, scripts, subprocedures, and databases that are provided by an HTTP server on the WWW.

Users need a browser program and an Internet connection to access a web site. Browser programs, also called "web browsers," are client applications that enable a user to navigate the Internet and view HTML documents on the WWW, another network, or the user's computer. Web browsers also allow users to follow codes called "tags" imbedded in an HTML document, which associate particular words and images in the document with URLs so that a user can access another file that may be half way around the world, at the press of a key or the click of a mouse.

These files may contain text (in a variety of fonts and styles), graphic images, movie files, and sounds as well as java applets, perl applications, other scripted languages, active X-controls, or other small imbedded software programs that execute when the user activates them by clicking on a link.

A key difficulty with posting image documents to a server on the WWW is that of simplicity for novice user. How does a novice user construct their own web page of images? Typically, the prior solution for providing web page construction of images requires the user to: (1) scan the images to disk; (2) write an HTML page to display each image; (3) write an HTML catalog to link the image files together; (4) generate small thumbnail images from full-size images; (5) insert the thumbnail image into the HTML catalog file; (6) upload the entire collection of images and HTML file to a server associated with an internet service provider (I. S. P.); and (7) start

the browser to go to the proper URL for the image web site. Needless to say, each of the previous steps is a complicated and time-consuming task for even the most experienced scanner owner.

Thus, a heretofore unaddressed need exists in the industry to address the aforementioned deficiencies and inadequacies.

SUMMARY OF THE INVENTION

The present invention is generally directed to a system and method for scanning images to a web site.

Briefly described, in architecture, the scan system can be implemented as follows. A scanner is provided for scanning an image in order to generate a scanned image. A transferring mechanism takes the scanned image generated by the scanner, and transfers the scanned image to a web device for storage. The web device is located on and accessed by a network. The web device manages and stores scanned images.

The present invention can also be viewed as providing a method for scanning images directly to a web site. In this regard, the method can be broadly summarized by the following steps: (1) scanning an image using a scanner; (2) determining a location on a network to transfer the image; (3) connecting the scanner to the network; and (4) transmitting the image to the location on the network.

The system and method for scanning images directly to a web site enables a scanner to transfer images directly to a web site without the use of a computer. The system and method for scanning images directly to a

web site is also a user friendly and efficient method for quickly and the efficiently creating an image web site.

Other features and advantages of the present invention will become apparent to one with skill in the art upon examination of the following drawings and detailed description. It is intended that all such additional features and advantages be included herein within the scope of the present invention.

BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying drawings incorporated in and forming a part of the specification illustrate several aspects of the present invention, and together with the description, serve to explain the principles of the invention. In the drawings:

FIG. 1 is a block diagram of various possible scan systems of the present invention.

FIG. 2 is a block diagram further illustrating in greater detail the possible scan systems of the present invention.

FIG. 3A is a block diagram illustrating the scan system and a browser program situated within a computer readable medium, for example, in a user computer system.

FIG. 3B is a block diagram illustrating the scan system situated within a stand-alone scanner.

FIG. 4A is a flow chart of the computer-controlled scan to web application for the user computer system of the present invention, as shown in FIG. 3A.

FIG. 4B is a flow chart of the scan system on a user stand-alone scanner, of the present invention, as shown in FIG. 3B.

FIG. 5 is a flow chart of the select site process for the scan system of the present invention, on both the computer-controlled and stand-alone scanner, as shown in FIGs. 4A and 4B.

FIG. 6 is a flow chart of the add catalog information process for the scan system of the present invention, on both the computer-controlled and stand-alone scanner, as shown in FIGs. 4A and 4B.

FIG. 7 is a flow chart of the transmit process for the scan system of the present invention, on both the computer-controlled and stand-alone scanner, as shown in FIGs. 4A and 4B.

FIG. 8 is a flow chart of the add site process for the scan system of the present invention, on both the computer-controlled and stand-alone scanner, as shown in FIGs. 4A and 4B.

FIG. 9 is a block diagram illustrating the scan system data flow of site lists for image web site destinations.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

The present invention will now be described in detail with specific reference to the drawings. While the invention will be described in connection with these drawings, there is no intent to limit it to the

embodiment or embodiments disclosed therein. On the contrary, the intent is to cover all alternatives, modifications, and equivalents included within the spirit and scope of the invention as defined by the appended claims.

Turning now to the drawings, FIG. 1 is a block diagram of possible system configurations that illustrate the flexibility and platform independence of the present invention. While the scan system configuration could take many forms, the diagram of FIG. 1 illustrates a plurality of scan devices 16 and 21, that are directly connected to a network 32, for example, but not limited to, a dial-in, LAN, WAN, PSTN, Intranet and Internet communication links (18 and 24). Each of the scan systems in FIG. 1 are uniquely illustrated to emphasize that scan systems may comprise of diverse hardware platforms.

As can be seen from FIG. 1, the scan systems may comprise of a scanner 22 that is connected to a computer 21. This allows the computer 21 to execute a scan system that interacts with scanner 22.

It is also illustrated in FIG. 1 that a stand-alone scanner 16 may be directly connected to a server 26 via a communication link 18. Network 18 may be, for example, an Ethernet type network (e.g., 10 BASE 2, 10 BASE 5, 10 BSAF, 10 BASE-T, base band network, a coaxial cable, a dial-in, LAN, WAN, PSTN, Intranet and Internet

Illustrated in FIG. 2 is a more detailed figure, showing that a scanner 16 may be connected directly to a user computer 21 or with an optional keyboard and display directly connected to a network 32.). The stand-alone scanner 16 includes the scan system 120 that it is specifically designed to

operate on stand-alone scanner systems. For some stand-alone scanners 16 to provide for scanning images directly to a LAN, WAN, Intranet or Internet network site, the stand-alone scanners 16 sometimes include a keypad and at least a limited display. In those instances where the stand-alone scanner 16 does not include an optional keypad or display, the user presets the destination network site. The identification of this preset destination network site can be downloaded via the communication link 18 or programmed utilizing standard methods.

As illustrated in FIG. 3A, a computer system that employs the scan system 100 may also include a browser program 53 (*e.g.*, Netscape, Internet Explorer, or other browser program) for use in accessing locations on a network 32. The browser program 53 provides for a variety of hardware platforms. Browsers are most commonly recognized for their utility for accessing information over the Internet 32. As aforementioned, a browser is a device or platform that allows a user to view a variety of service collections.

The browser retrieves information from a web server 31 or intranet server 26 using HTTP, then interprets HTML code, formats the code, and displays the interpreted result on a workstation display. The browser program 53 resides in computer memory 51 and access communication facilities modem 47 to bring resources from the network 32 to the user's browser using the modem. In order to find a resource, the user should know the network location (*i.e.*, site) of the resource denoted by a network location

identifier or URL. These identifiers are often cryptic, following very complex schemes and formats in their naming conventions.

Systems today identify, access, and process these resources desired by a user by using the processor 41, storage device 42, and memory 51 with an operating system 52 and browser program 53. The processor accepts data from memory 51 and storage 42 over the local interface 43, for example, one or more buses. Direction from the user can be signaled by using one or more input devices, for example, mouse 44 and keyboard 45, as well as by actuating a pushbutton on the front of the scanner itself. The actions input and result output are displayed on the display terminal 46.

Also illustrated in FIG. 3A is the scan system 100 of the present invention situated in a user's computer system 12. This scan system 100 will be further explained hereafter with regard to Figs. 4-9.

Illustrated in Fig. 3B is a block diagram of a stand-alone scanner 16 including the scan application 120 of the present invention. Scanner 16 usually includes a processor (not shown), a memory (not shown) and an optical input device (not shown). The processor accepts data from the optical input device and memory over a bus (not shown). Direction from the user can be signaled by using the input devices such as a keypad 55, as well as by actuating a pushbutton (not shown) on the front of the scanner itself. The actions input and result output may be displayed on the optional display terminal 56. The stand-alone scanner 16 also includes a modem or network card 57 to establish communication with Web server 31 on network 32. Scanner 16 can also be implemented utilizing non-processor circuitry.

Also illustrated in FIG. 3B, is the scan system 120 of the present invention situated in the stand-alone scanner 16. This scan system 120 resides in hardware, software or firmware of the stand-alone scanner 16. The scan system 120 will be further explained hereafter with regard to Figs. 4B-9.

With regard to FIG. 4A, illustrated is an example of a scan system 100 on a computer system 12. The first step of scan system 100, residing on a computer, is to initialize the scan system 100 on the computer, at step 101. The scan system 100 directs the scanner 22 (FIG. 2) to scan an image at step 102. At step 103, the scan system 100 displays the image scan on the display 46 (FIG. 3). Along with this display of the image scan is a list of applications and destinations for images to be transferred. At step 104, the scan system 100 accepts the user selection of a destination for the image to be posted.

At step 105, the scan system 100 checks if the destination selected is a scan to web site. If the destination selected at step 104 is a scan to web site, the scan system 100 executes the select site process 140 at step 106. The select site process 140 is herein defined in further detail with regard to Fig. 5.

If the destination selected at step 104 is not a scan to web site, the scan system 100 utilizes the user-configured site that represents the selected destination at step 107.

After the correct site for the selected destination has been determined at steps 106 or 107, the scan system 100 performs the catalog process 150 at step 108. The catalog process 150 allows a user to add information to the

images previously scanned. The catalog process 150 is herein defined in further detail with regard to Fig. 6.

At step 110, the scan system 100 transmits the image data to the selected web site. The transmit data process 160 is herein defined in further detail with regard to Fig. 7.

At step 112, the scan system 100 queries if the user desires to review the image data transmitted at step 112. If the user desires to review the image data, the scan system 100 initiates operation of the browser program 53 at step 113. After the scan system 100 initiates operation of the browser program 53, or if the user indicates that the user does not wish to review the image data transmitted, the scan system 100 exits at step 119.

Illustrated in FIG. 4B is an example of the scan system 120 residing in a stand-alone scanner 16 (FIG. 3B) that is connected a web site. First the user initiates the scan system 120 by pressing a start button (not shown) on the scanner 16 at step 121. Next at step 122, the image is scanned into the scanner 16.

At step 123, a list of potential applications and destinations for image transfer is displayed if possible. If scanner 16 (FIG. 2) does not provide a display 56 (FIG. 3B) for the list of potential applications and destinations to be displayed, the scan system 120 performs a minimal scanner configuration operation that is herein defined below. However, there are some scanners that provide a display 56 (FIG. 3B) to be utilized for communication with a user. In these cases, the scan system 120 may display the image scan along with the list of potential applications and

destinations on the scanner display 56 (FIG. 3B) at step 123, if the stand-alone scanner 16 (FIG. 3B) has a large enough display. In applications where the stand-alone scanner 16 does not have a large enough display, only the display of the list of potential applications and destinations is performed. At step 124, the scan system 120 then accepts the user selection of a destination for the image to be posted.

At step 125, the scan system 120 checks if the destination selected is a scan to web site. If the destination selected at step 124 is a scan to web site, the scan system 120 executes the select site process 140 at step 126. The select site process 140 is herein defined in further detail with regard to Fig. 5.

If the destination selected at step 124 is not a scan to web site, the scan system 120 utilizes the user-configured site that represents the selected destination at step 127.

After the correct site for the selected destination has been determined at steps 126 or 127, the scan system 120 performs the catalog process 150 at step 128. The catalog process 150 allows a user to add information to the images previously scanned. The catalog process 150 is herein defined in further detail with regard to Fig. 6.

At step 130, the scan system 120 on the stand-alone scanner transmits the image data to the selected web site. The transmit data process 160 is herein defined in further detail with regard to Fig. 7.

If the scanner has a built in browser capability, the scan system 120 on the stand-alone scanner may allow the user to review the image data

transmitted. If the user wishes to review the image data the stand-alone scan system 120 on the stand-alone scanner starts the web browser program 53. After the scan system 120 on the stand-alone scanner starts the web browser program 53, or if the user does not wish to review the image data transmitted, the scan system 120 exits at step 139.

In a minimal scanner configuration operation that lacks either a keypad or display, the scan system 120 on the stand-alone scanner performs the following steps. First, the scanner operation is initialized at step 121. The scan system 120 next scans the image at step 122. The scan system 120 then proceeds to identify the user-configured site that represents the predetermined destination at step 127. In the minimal scanner configuration, the scan system 120 proceeds to transmit the data at step 130. The transmit data process 160 is herein defined in further detail with regard to Fig. 6. After transmitting the data to the user-configured site that represents the predetermined destination, the scan system 120 exits the minimal scanner configuration operation step 139.

Illustrated in FIG. 5 is the flow diagram of the select site process 140. The select site process 140 is executable by both the scan system 100 on computer 21, and the scanner scan application 120 on scanner 16. The select site process 140 is initialized at step 141. At step 142, the select site process 140 determines if any sites exist or the desired site exists at destination previously selected. If no sites exist or the desired site does not exist at the destination previously selected, the select site process 140 prompts the user to add a site to the destination list at step 143. The add

site process 190 is herein defined in further detail with regard to Fig. 8. If the desired site does exist, the select site process 140 allows a user to select a site for the selected destination at step 144. Also, at step 144, the select site process 140 sends the image scanned to the user selected site for the selected destination. After the select site process 140 sends the image to the user-selected site for the selected destination, the select site process 140 exits at step 149

Illustrated in FIG. 6 is the flow diagram of the catalog process 150. The catalog process 150 is executable by both the scan system 100 on computer 21 and the scanner scan application 120 on scanner 16, and allows a user to add information to the images previously scanned. The catalog process 150 to add information is initialized, at step 151. At step 152, the catalog process 150 determines if the selected site supports catalogs. If the site selected at step 144 (Fig. 5) does not support catalog information, the catalog process 150 proceeds to step 159 and exits the catalog process 150. If the site selected at step 144 (Fig. 5) does support catalog information, the catalog process 150 allows the user to select a catalog at step 153.

At step 154, the catalog process 150 queries the user if more information (*i.e.* captions, size of the image, description or the like) is to be added to each individual picture in the catalog. If more information is not to be added to each individual picture in the catalog, the catalog process 150 proceeds to step 159 and exits. If more information is to be added to each individual picture in the catalog, the catalog process 150 solicits the user to

add the desired information to each of the images scanned. After the desired information is added to the desired images, the catalog process 150 exits at step 159.

With regard to FIG. 7, illustrated is an example of the transmit process 160. The transmit process 160 is executed by both the scan system 100 on computer 21, and the scanner scan application 120 on scanner 16. The transmit process 160 is first initialized at step 161. At step 162, the transmit process 160 determines if the destination site is a supported site.

If the destination site is not a supported site, the transmit process 160 opens a file transfer protocol (FTP) connection that allows the user to log into the selected server at step 163. The transmit process 160 generates a thumbnail image for each image to be uploaded at step 164. At step 165, the transmit process 160 requests and receives the catalog file. The transmit process 160 next inserts a link into each of the thumbnail, image and information data in the catalog at step 166. At step 167, the image data is encapsulated in HTML data and saved to the local server.

The catalog file is then saved by the transmit process 160 to the destination site at step 168. Next, the transmit process 160 transmits the encapsulated HTML thumbnail and full-size image data to the destination web server at step 171. The transmit process 160 closes the FTP connection at step 172, and sets up the URL to the base URL at step 173. The transmit process 160 then exits the transmit process at step 189.

If the destination site is a supported site, the transmit process 160 at step 181, connects to the supported server via the network 32. At step 182,

the transmit process 160 transmits the image data in a form upload using an emulated submit HTTP function.

The transmit process 160 next verifies whether or not the transmitted data was received without error at step 183. The verification of transmission without error is performed by verifying the return codes. If the transmission performed at step 182 is without error, the transmit process 160 receives the destination URL after receiving the return codes at step 184. The transmit process 160 then exits the transmit process at step 189.

If the transmission at step 182 endured an error, the transmission process 160 receives an error code at step 186, and displays the error to the user at step 187. The transmit process 160 then exits at step 189.

Illustrated in FIG. 8 is an example of the add site process 190. The add site process 190 is executable by both the scan system 100 on computer 21, and the scanner scan application 120 on scanner 16. First, the add site process 190 is initialized at step 191. The add site process 190 then queries the user if the updated site list is to be retrieved at step 192.

If the updated site list is to be retrieved, the site process 190 then retrieves the updated site list at step 193 and returns to step 192. If the updated site list is not to be retrieved at step 192, the add site process 190 then queries the user if custom sites are to be added at step 194.

If custom sites are to be added, the add site process 190 queries the user at step 195, to enter the name for the custom site, the server name for the custom site to be supported by, a remote directory and base URL to view

images for the custom site. At step 196, the add site process 190 queries the user to indicate if catalog support is enabled for the custom site. The add site process 190 then proceeds to step 203 to permit the user to add a specific site name and password for the custom site.

If the custom site is not to be added, the add site process 190 permits the user to select a well-known site at step 201. At step 202, the user configures the well-known site for the user list. The add site process 190 proceeds to step 203 to permit the user to add a specific site name and password for the non-custom site.

After either a custom or non-custom site has been added, the add site process 190 queries the user if the newly added site is to be added to the user destination list at step 204. If the newly added site is to be added to a user destination list, the add site process 190 adds the newly added user site to the user destination list at step 205. After the newly added user site has been added to the user destination list or the user indicated that the site was not to be added to the user destination list, the add site process 190 exits at step 209.

Illustrated in Fig. 9, is the block diagram for the different types of image destination site lists. Illustrated in block 211, is an example of the secured site list that is a list of supported sites that are maintained and made available only to the scan system 100 (Fig. 4) or 120 (Fig. 5) of the present invention. The secured site list can be tied to a button labeled "download current sites." But not having any supported HTML around the file, the visibility of the secured site list will be hidden from the normal web

cruiser (*i.e.* a person who is operating web browser software). It is also desirable to encrypt the secured site's list so that more sophisticated web cruisers will not be able to copy the list. The exact format and location of the "Gold Sites" list should not be publicly disclosed to prevent casual browsing. The inventors keep the technical information contained in the list confidential to prevent anyone from abusing special made-for-supported access URLs. Although the names in the list can be made available, there could be some other sensitive information in the list: web site expiration dates, private URLs for uploading, *etc.*

Block 212 is an example of the local available site list. This is essentially a copy of the secured site list that resides on the user's local machine. It is an encrypted file to protect the list from being copied. A user cannot access and scan an image to a location on this local available site list, unless the site has been copied into the user's configured site's list.

Block 213 is an example of the user configured site list. This user's configured site list will appear in the scan to web destination list selected by the user at step 144 (FIG. 6). Once a site has been inserted into the user configured site list is available for the user to scan images to on the Web.

Block 214 is an example of the user's main drop-down destination list. Users main drop-down destination list is the user's current scanning solutions.

The previously defined flow charts show the architecture, functionality, and operation of a possible implementation of software for transferring images from a scanner to an online web page software.

In this regard, each block represents a module, segment, or portion of code, which comprises one or more executable instructions for implementing the specified logical function(s). It should also be noted that in some alternative implementations, the functions noted in the blocks may occur out of the order. For example, blocks shown in succession may in fact be executed substantially concurrently or the blocks may sometimes be executed in the reverse order, depending upon the functionality involved, as described herein above.

The foregoing description has been presented for purposes of illustration and description. It is not intended to be exhaustive or to limit the invention to the precise forms disclosed. Obvious modifications or variations are possible in light of the above teachings. The embodiment or embodiments discussed were chosen and described to provide the best illustration of the principles of the invention and its practical application to thereby enable one of ordinary skill in the art to utilize the invention in various embodiments and with various modifications as are suited to the particular use contemplated. All such modifications and variations are within the scope of the invention as determined by the appended claims when interpreted in accordance with the breadth to which they are fairly and legally entitled.

CLAIMS

What is claimed is:

1. A method for scanning and transferring images to a web site, the method comprising the steps of:

scanning an image (102/122) using a scanner (16/22);

determining a location on a network to transfer said image (104/124);

connecting said scanner to said network (163); and

transmitting said image to said location on said network (171/182).

2. The method of claim 1, wherein the step of determining a location further includes the steps of:

displaying a plurality of destinations (103/123); and

selecting one of said plurality of destinations for transmitting said image (104/124).

3. The method of claim 2, further including the step of:

adding a new location to one of said plurality of destinations (190).

4. The method of claim 1, further including the step of:

determining if said location supports adding additional information to said image (152); and

providing for said additional information to be added to said image, if said location supports adding additional information (155).

5. The method of claim 1, further including the step of:

determining if said location is a supported location (162), wherein the step of determining if said location is a supported location further includes the steps of:

performing a non-support transmission if said location is not a supported location (171); and

performing a support transmission if said location is a supported location, wherein the step of performing said support transmission further includes the step of encapsulating said image (182).

6. The method of claim 5, wherein the step of performing said non-support transmission further includes the steps of:

generating a thumbnail image (164);

inserting said location information in said thumbnail image and said image (166);

creating a uniform resource locator for said location; and

transmitting said thumbnail image to said location on said network (171).

7. A system for scanning and transferring images directly to a web device, said scanner system comprising:

a scanner (16/22) for generating a scanned image;

a web device (31) on a network (32), for storing scanned images; and

a scanning mechanism (100/120) for transferring said scanned images generated by said scanner (16/22), to said web device (31) for storage.

8. The system of claim 7, further comprising:

a display (46/56) for exhibiting a plurality of destinations;

an input device (45/55) for allowing a user to select one of said plurality of destinations; and

a first scanning mechanism (190) for adding a new web device to one of said plurality of destinations.

9. The system of claim 7, further comprising:

a second scanning mechanism for determining if said web device supports adding additional information to said image (152); and

a third scanning mechanism for adding additional information to said scanned image (155), if said web device supports adding additional information to said image.

10. The system of claim 7, further comprising:

a fourth scanning mechanism for providing supported transmission if said web device is a supported location, said fifth scanning mechanism further including a first supported transmission mechanism for encapsulating said scanned image (182);

a fifth scanning mechanism for providing non-supported transmission if said web device is not a supported location, said fourth scanning mechanism further comprising:

a first non-support transmission mechanism for generating a thumbnail image (164);

a second non-support transmission mechanism for creating a uniform resource locator pointing to said web device;

a third non-support transmission mechanism for inserting said uniform resource locator in said thumbnail image (166); and

a fourth non-support transmission mechanism for transmitting said thumbnail image to said web device on said network (171).

INVESTOR IN PEOPLE

Application No: GB 0018993.6 23. **Examiner:** Iwan Thomas
Claims searched: 1-10 **Date of search:** 7 February 2001

Patents Act 1977
Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.S): H4F FFB

Int Cl (Ed.7): H04N 1/00

Other: Online: WPI, EPODOC, PAJ, INTERNET

Documents considered to be relevant:

Category	Identity of document and relevant passage		Relevant to claims
X	GB 2331663 A	(FUNAI) See whole document	1-4 & 7 at least
X	GB 2324002 A	(FUNAI) See whole document	1-4 & 7 at least
X	WO 99/48276 A1	(FLASHPOINT) See abstract, pages 8, 9 and fig. 7	1-3 & 7 at least
X	WO 98/58335 A2	(ADOBE) See abstract, page 2 line 14 - page 3 line 10 and fig. 1	1-3 & 7 at least
X	US 5764866 A	(RICOH) See abstract, cols. 2 - 4 and figs. 1, 7 and 8	1-4 & 7 at least

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
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